

REMARKS

This response is intended as a full and complete response to the non-final Office Action mailed November 14, 2007. By this response, Applicants have amended independent claims 28 and 37.

In view of the foregoing amendments and the following discussion, Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103. Thus, Applicants believe that all of these claims are now in allowable form.

It is to be understood that, by amending the claims, Applicants do not acquiesce to the Examiner's characterizations of the art of record or to Applicants' subject matter recited in the pending claims. Further, Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant response including amendments.

35 U.S.C. §103 Rejection of Claims 28, 30-34, 36-37, 39-45 and 47

The Examiner has rejected claims 28, 30-34, 36-37, 39-45 and 47 under 35 U.S.C. §103(a) as being unpatentable over Lanier et al. (U.S. 5,588,104, hereinafter "Lanier I") in view of Lanier et al. (U.S. 5,588,139, hereinafter "Lanier II") further in view of Young (U.S. 4,706,121, hereinafter "Young"). Applicants respectfully traverse the rejection.

The Applicants respectfully submit that Lanier I, Lanier II and Young, alone or in any permissible combination, fail to teach or suggest the Applicants' invention of a method for placing virtual objects in virtual object locations in a video program at a head end in a television program delivery system, as specifically recited by Applicants' independent claims 28 and 37. Specifically, Applicants' independent claims 28 and 37 positively recite:

28. A method for placing virtual objects in virtual object locations in a video program at a head end in a television program delivery system, comprising:
receiving at the head end a plurality of virtual objects, wherein said head end is coupled to a plurality of set top terminals;
storing the plurality of virtual objects in a database;

identifying at the head end at least one virtual object location for each frame of the video program;
selecting at the head end one or more of the plurality of virtual objects to be transmitted to a targeted terminal of said plurality of set top terminals according to a set of placement rules and targeting information;
inserting at the head end the one or more of the plurality of virtual objects into the identified at least one virtual object location during a display or storage of the video program; and
transmitting said video program to said targeted terminal. (Emphasis added).

37. An operations center located at a head end, in a television program delivery system that receives a plurality of virtual objects and video programs having virtual object locations and places the virtual objects into the video programs, comprising:
a database for storing the received plurality of virtual objects;
a virtual object location definer for identifying at least one virtual object location;
a virtual object selector for selecting at least one of the plurality of virtual objects to be transmitted to a viewer terminal of a plurality of viewer terminals coupled to said head end according to a set of placement rules; and
a targeted virtual object management system for selecting at least one of the plurality of virtual objects according to targeting information and inserting the selected at least one of the plurality of virtual objects into the at least one virtual object location during a display of the video programs at said viewer terminal. (Emphasis added).

In one embodiment, the Applicants' invention teaches a head end-centric method and operations center for inserting virtual objects into video programs. Consequently, the Applicants' invention advantageously allows the set top terminals located at a subscriber's home to be cheaper and require less hardware.

The Applicants respectfully submit that Lanier I, Lanier II and Young, alone or in any permissible combination fail to teach or suggest the head end-centric method and operations center as positively claimed by the Applicants' invention. The Applicants note that the Examiner asserts that Lanier I teaches receiving, identifying and selecting virtual objects at a head end. The Applicants' respectfully disagree.

The Applicants respectfully submit that a head end provides centralized processing for a plurality of set top terminals. This is clarified by the amendments to the independent claims 28 and 37 as indicated above. In light of this amendment,

Lanier I clearly fails to teach or suggest receiving, identifying and selecting virtual objects at a head end.

Rather, Lanier I only teaches a computer terminal for crating virtual worlds. (See Lanier, generally). Notably, Lanier I teaches that a user may use the computer, e.g., a Macintosh computer, to choose various settings. (See Lanier I, col. 2, ll. 1-8). In other words, the computer terminal taught by Lanier at best is similar to a set top terminal of the Applicants' invention.

Moreover, the Applicants amended independent claims recite that the head end is coupled to a plurality of set top terminals. Even if Lanier I is broadly interpreted, Lanier I clearly fails to teach or suggest that the computer is coupled to a plurality of set top terminals.

In addition, Lanier II and Young fail to bridge the substantial gap left by Lanier I. For example, Lanier II only teaches generating a virtual environment based on information captured from various sensors. (See Lanier II, Abstract). Nowhere in Lanier II does it teach or suggest a head end, as defined by the Applicants' invention, for performing the steps of receiving, identifying or selecting virtual objects.

Young also fails to bridge the substantial gap left by Lanier I and Lanier II. The Examiner asserts that Young teaches a cable head end in a television delivery system. The Applicants respectfully disagree. Young only teaches an FM transmitter for supplying TV schedule information as an FM broadcast. (See Young, col. 6, ll. 18-28). Young teaches that the FM transmitter does not require the cooperation of the television networks or stations. (See *Id.*, emphasis added). In other words, the FM transmitter taught by Young is clearly not a head end.

Even if the Examiner were to maintain a broad interpretation of Young, the Applicants respectfully submit that nowhere in Young does Young teach that the FM transmitter is able to perform the steps of receiving, identifying or selecting virtual objects, as taught by the Applicants' invention. In other words, even if Lanier I, Lanier II and Young were combined, the combination would still fail to teach or suggest all the limitations of the Applicants' independent claims. Rather, the combination of Lanier I, Lanier II and Young would only teach an FM transmitter coupled to a computer (i.e. a set top terminal), wherein the computer receives and manipulates virtual objects based

on information received from various inputs. Notably, the combination still fails to teach or suggest that a head end performs all the steps as defined by the Applicants' independent claims.

Therefore, Applicants respectfully submit that independent claims 28 and 37 are patentable under 35 U.S.C. 103(a) over Lanier I in view of Lanier II further in view of Young. Furthermore, each of the remaining rejected claims depends from one of these claims and recites additional limitations therefrom. Therefore, these remaining rejected claims are patentable for at least the reasons discussed above with respect to the claims from which they depend. Therefore, Applicants respectfully request that the Examiner's rejection be withdrawn.

35 U.S.C. §103 Rejection of Claims 29 and 38

The Examiner has rejected claims 29 and 38 under 35 U.S.C. §103(a) as being unpatentable over Lanier I in view of Lanier II further in view of Young further in view of Esch et al. (US Patent 5,283,639, hereinafter Esch). Applicants respectfully traverse the rejection.

Claims 29 and 38 depend from independent claim 28 and 37, respectively, and recite additional limitations thereof. For at least the reasons discussed above, the combination of Lanier I, Lanier II and Young fails to teach or suggest Applicants' invention as recited in independent claims 28 and 37. Specifically, none of the prior art references currently cited teaches or suggests a method or an operations center for placing virtual objects in virtual object locations in a video program at a head end. Moreover, Esch fails to bridge the substantial gap left by Lanier I, Lanier II and Young because Esch specifically teaches that all the customization occurs at each remote site (i.e. a set top terminal) and not at the head end. (See Esch, col. 4, ll. 14-19; col. 5, ll. 22-46; col. 7, ll. 18-20).

Accordingly, any attempted combination of the Lanier I, Lanier II and Young references with any additional reference(s), in a rejection against the dependent claims, would still result in a gap in the combined teachings in regards to the independent claim. As such, the Applicants submit that dependent claims 29 and 38 are patentable

under 35 U.S.C. §103 over the combination of Lanier I, Lanier II, Young and Esch. Therefore, Applicants respectfully requests that the Examiner's rejection be withdrawn.

35 U.S.C. §103 Rejection of Claims 35 and 46

The Examiner has rejected claims 35 and 46 under 35 U.S.C. §103(a) as being unpatentable over Lanier I in view of Lanier II further in view of Young further in view of de Hond (US Patent 5,737,533, hereinafter Hond). Applicants respectfully traverse the rejection.

Claims 35 and 46 depend from independent claim 28 and 37, respectively, and recite additional limitations thereof. For at least the reasons discussed above, the combination of Lanier I, Lanier II and Young fails to teach or suggest Applicants' invention as recited in independent claims 28 and 37. Specifically, none of the prior art references currently cited teaches or suggests a method or an operations center for placing virtual objects in virtual object locations in a video program at a head end. Accordingly, any attempted combination of the Lanier I, Lanier II and Young references with any additional reference(s), in a rejection against the dependent claims, would still result in a gap in the combined teachings in regards to the independent claim.

Moreover, the Applicants respectfully submit Hond fails to bridge the substantial gap left by Lanier I, Lanier II and Young because Hond is not a proper reference. The Applicants claim priority to U.S. Patent Application Serial No. 07/991,074 filed on December 9, 1992. The earliest filing date of Hond is October 26, 1995. As a result, the effective filing date of the Applicants' invention is earlier than the effective filing date of Hond. Therefore, Hond is not a proper reference against the Applicants' invention.

As such, the Applicants submit that dependent claims 35 and 46 are patentable under 35 U.S.C. §103 over the combination of Lanier I, Lanier II, Young and Hond. Therefore, Applicants respectfully requests that the Examiner's rejection be withdrawn.

SECONDARY REFERENCES

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to Applicants' disclosure than the

primary references cited in the Office Action. Therefore, Applicants believe that a detailed discussion of the secondary references is not necessary for a full and complete response to this Office Action.

CONCLUSION

Thus, Applicants submit that none of the claims presently in the application, are obvious under the provisions of 35 U.S.C. §103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall or Jimmy Kim, at (732) 530-9404, so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

Dated: _____

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